

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated May 12, 2006 has been received and its contents carefully reviewed.

By this Response, claim 15 has been amended and claims 18 and 19 have been added to provide an additional scope of protection for the originally disclosed subject matter. No new matter has been added. Claims 3-9 and 11-19 are pending in the application. Reconsideration and withdrawal of the rejections in view of the above amendments and the following remarks are respectfully requested.

In the Office Action, claims 3-6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,078,375, issued to Matsumoto, in view of U.S. Patent No. 5,977,562, issued to Hirakata et al. (hereafter "Hirakata"). Applicant respectfully traverses the rejection because neither Matsumoto nor Hirakata, analyzed alone or in any combination, teaches or suggests the combined features recited in the claims of the present application. In particular, Matsumoto and Hirakata fail to teach a method of fabricating an in-plane switching mode liquid crystal display device that includes, among other features, "rubbing one of the first and second substrates in one direction, which can be any direction... wherein the first and second substrates have a rectangular shape having a long side and a short side, and the liquid crystal layer is oriented by the rubbing using a rubbing roll, wherein the rubbing roll has a length corresponding to the short side", as recited in independent claim 3 of the present application.

The Office Action concedes that Matsumoto does not explicitly disclose that the field generating electrodes have a curved shape, and Matsumoto lacks "the limitation such as the rubbing roll has a length corresponding to the short side of the substrate" (see, page 3 and 4 of the Office Action). To remedy the deficient teachings of Matsumoto, the Office Action relies first upon the teachings of FIG. 11 of Hirakata. Hirakata discloses "a pixel electrode 331 connected to a drain of a thin-film transistor 100 and a common electrode 332 branching out from a common line 104 are arranged to form double spiral curves" (col. 9, lines 38-41). However, Applicant submits Hirakata fails to teach "the rubbing roll has a length corresponding to the short side", as recited in the claims of the present application.

Applicant notes, regarding the lack of Matsumoto and Hirakata teaching “the rubbing roll has a length corresponding to the short side of the substrate”, the Office Action relies merely upon a broad statement that it is “notoriously well known in the art to use [a] rubbing roll having a length corresponding to the short side of the substrate...”. Applicant respectfully disagrees with this apparent “Official Notice” statement and submits this recited feature of the claims of the present application is not obvious.

“Official Notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known , or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known” (see, MPEP § 2144.03(A)). Further, as discussed in the Discussion of the Related Art section of the present specification discloses, for example, “a rubbing roll 62 having a length “L2” corresponding to the diagonal length “L1” of the mother glass 60”, or the rubbing direction may be, for example, as illustrated in FIGs 4A and 4B. There is no “notoriously well known” and definite use of the rubbing roll having a length corresponding to the short side of the substrate” as recited in the claims of the present application. Specifically, “the rubbing roll has a length corresponding to the short side”, as taken in context with the other recited features of the present claim, is not capable of instant and unquestionable demonstration as being well known. Applicant respectfully requests, should this basis of rejection be maintained, documentary evidence to support the basis of rejection be provided.

Because no combination of Matsumoto and Hirakata teaches the combined features recited in the claims of the present application, independent claim 3 and its dependent claims 4-6 and 8 are allowable over any combination of Matsumoto and Hirakata. Reconsideration and withdrawal of the rejection are respectfully requested.

In the Office Action, claims 7-12, 15 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Hirakata and further in view of Japanese Patent No. JP 09-325328, issued to Hakoda et al. (hereafter “Hakoda”). And, claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto and Hirakata and Hakoda and further in view of U.S. Patent No. 4,609,255, issued to Leenhouts et al. (hereafter “Leenhouts”). Applicant notes claim 10 was previously cancelled and should not be part of the

rejected claims. Also, claim 17 is not identified in paragraph five (5) of the office action as being rejected; however, Applicant is assuming only Matsumoto is applied against claim 17. Applicant respectfully traverses the rejections because neither Matsumoto, Hirakata, Hakoda nor Leenhouts, analyzed alone or in any combination, teaches or suggests a method of fabricating an in-plane switching mode liquid crystal display device that includes, among other features, “rubbing one of the first and second substrates in one direction, which can be any direction... wherein the first and second substrates have a rectangular shape having a long side and a short side, and the liquid crystal layer is oriented by the rubbing using a rubbing roll, wherein the rubbing roll has a length corresponding to the short side”, as recited in independent claim 3 of the present application, from which claims 7- 9 depend.

Matsumoto, Hirakata, Hakoda and Leenhouts also fail to teach an in-plane switching mode liquid crystal display device that includes , among other features, “one of the first and second substrates is rubbed using a rubbing roller in one direction, which can be any direction... wherein the rubbing roller has a length corresponding to the second direction”, as recited in independent claim 15, from which claims 11-14, 16 and 17 depend.

Applicant has discussed above the deficient teachings of Matsumoto and Hirakata, and respectfully submit Hakoda and Leenhouts fail to remedy the deficient teachings of Matsumoto and Hirakata such that one of ordinary skill in the art would be motivated to modify the teachings of Matsumoto to obtain a method of fabricating an in-plane switching mode liquid crystal display device and a in-plane switching mode liquid crystal display device having the combined features recited in the claims of the present application.

Hakoda discloses a manufacturing method of a liquid crystal display device that includes “forming the panel patterns of varying sized plural liquid crystal display device panels on a mother glass base plate and then cutting the glass” (see, Problem To Be Solved). Leenhouts discloses a liquid crystal display device having front and back polarizers. (see, col. 1, lines 7-11). However, neither Hakoda nor Leenhouts teaches “the rubbing roll has a length corresponding to the short side”, as recited in independent claim 3, nor “the rubbing roller has a length corresponding to the second direction”, as recited in independent claim 15. Because Hakoda and

Leenhouts fail to teach at least these features of claims 3 and 15, Hakoda and Leenhouts do not remedy the deficient teachings of Matsumoto and Hirakata.

Accordingly, no combination of Matsumoto, Hirakata, Hakoda and Leenhouts would provide a method of fabricating an in-plane switching mode liquid crystal display device having the combined features recited in independent claim 3 and its dependent claims 7-9, and an in-plane switching mode liquid crystal display device having the combined features recited in independent claim 15 and its dependent claims 11-14, 16 and 17. Reconsideration and withdrawal of the rejections are respectfully requested.

New claims 18 and 19 have been added to provide an additional scope of protection for the originally disclosed invention. Applicant respectfully submit neither Matsumoto, Hirakata, Hakoda nor Leenhouts teaches or suggests a method of fabricating and an in-plane switching mode liquid crystal display device “wherein the common electrode includes an outer common electrode pattern and an inner common electrode pattern, and wherein the pixel electrode includes a first pixel electrode pattern formed between the outer and inner common electrode patterns, a second pixel electrode pattern having a discal shape and located inside the inner common electrode pattern, and a pixel connecting line”, as recited in dependent claims 18 and 19. Accordingly, claims 18 and 19 are allowable over Matsumoto, Hirakata, Hakoda and Leenhouts.

Applicant believes the foregoing amendments and remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

Application No.: 10/824,598
Amendment dated August 7, 2006
Reply to Office Action dated May 12, 2006

Docket No.: 8734.292.00

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: August 7, 2006

Respectfully submitted,

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